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ABSTRACT

Effect of FIFA 11+ Warm-Up Kids on Agility and Power Among Youth Soccer Kids

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I. INTRODUCTION

Youth soccer performance relies on agility and power, often enhanced through effective warm-up routines. FIFA 11+ has been proposed as a structured program improving motor skills and reducing injuries [1][2]. However, its superiority over traditional warm-ups in enhancing agility and power among young players remains unclear. This study evaluates FIFA 11+ effects on youth performance and compares outcomes with conventional warm-up practices to inform evidence-based training strategies.

II. METHODS

Sixteen youth soccer players aged 8–12 were assigned to either a control group with traditional warm-ups or an experimental group performing FIFA 11+. The intervention lasted four weeks with one session per week. Agility was assessed using the T-Test, while lower-body power was evaluated through the standing long jump. Pre- and post-intervention comparisons examined performance differences between groups.

III. RESULTS AND DISCUSSION

A. Effects of Warm-up on Physical Performance

Table I shows the pre- and post-test results for the FIFA 11+ Warm-Up Kids group. Participants demonstrated significant improvements in both lower-body power and agility. The mean standing long jump distance increased from 142.19 ± 12.66 cm to 147.06 ± 12.72 cm ($p < 0.001$), indicating enhanced explosive leg strength. Similarly, agility performance improved, with T-test times decreasing from 8.25 ± 0.44 s to 8.01 ± 0.55 s ($p < 0.001$). These results support the effectiveness of the FIFA 11+ Kids warm-up program in developing neuromuscular coordination, balance, and power in young athletes, as previously reported by Bizzini and Dvorak [1]. The inclusion of plyometric and directional movement drills likely contributed to these improvements.

TABLE I
PAIRED T-TEST RESULTS (FIFA 11+ WARM UP KIDS)

Assessment	Pre	Post	<i>p</i> value
Standing Long Jump (cm)	142.19 ± 12.66	147.06 ± 12.72	<0.00
Agility T-Test (s)	8.25 ± 0.44	8.01 ± 0.55	<0.00

Table II presents the results for the normal warm-up group, which also showed significant gains in physical performance. The standing long jump improved from 148.75 ± 6.45 cm to 152.00 ± 154.00 cm ($p < 0.001$), and agility T-test times decreased from 8.16 ± 0.43 s to 7.90 ± 0.58 s ($p < 0.001$). These findings suggest that even standard warm-up routines can yield short-term performance benefits in youth athletes by increasing muscle temperature, activating the nervous system, and preparing the body for movement. However, when compared to the structured approach of FIFA 11+ Kids, the normal warm-up may lack the targeted neuromuscular and sport-specific components needed for long-term athletic development [2].

TABLE II
PAIRED T-TEST RESULTS (NORMAL GROUP)

Assessment	Pre	Post	<i>P</i> value
Standing Long Jump (cm)	148.75 ± 6.45	152.00 ± 154.00	<0.00
Agility T-Test (s)	8.16 ± 0.43	7.90 ± 0.58	<0.00

B. Comparison Between Warm-up Methods

Table III compares the mean improvements between the FIFA 11+ and normal warm-up groups using independent t-tests. A statistically significant difference was observed in standing long jump performance, with the FIFA 11+ group showing a greater improvement (6.50 ± 2.56 cm) compared to the normal group (3.25 ± 0.89 cm, $p = 0.004$). This suggests that the FIFA 11+ Kids warm-up is more effective in enhancing lower-limb explosive power, likely due to its structured inclusion of plyometric drills and strength-based activities that target key jumping muscles [1]. In contrast, no significant difference was found between groups for agility T-test performance ($p = 0.637$), indicating that while both warm-up routines improved agility over time, the between-group differences were minimal. This aligns with prior research by Asgari et al. [3], which suggests that agility development may require longer intervention periods or more targeted change-of-direction training to show clear differences between protocols. Overall, the findings support the utility of FIFA 11+ Kids in enhancing youth physical performance, particularly in explosive movements.

TABLE III
INDEPENDENT T-TEST RESULT (FIFA 11+ AND NORMAL GROUP)

Assessment	FIFA 11+	Normal	t(14)	P value
Stand Long Jump (cm)	6.50 ± 2.56	3.25 ± 0.89	-0.52	0.004
Agility T-Test (s)	-0.21 ± 0.14	-0.260 ± 0.28	0.294	0.637

IV. CONCLUSIONS

The findings of this study indicate that the FIFA 11+ Warm-Up Kids program is effective in improving lower-body power and agility among youth soccer players. Both warm-up methods led to significant performance gains, but the FIFA 11+ group showed greater improvements in the standing long jump and comparable gains in agility. These results support the use of structured, sport-specific warm-ups like FIFA 11+ to enhance physical performance in young athletes.

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